



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,509	03/14/2001	Yoshitaka Dansui	L7016.01105	1885

7590 02/18/2005

STEVENS, DAVIS, MILLER & MOSHER, L.L.P.
Suite 850
1615 L Street, N.W.
Washington, DC 20036

EXAMINER

HODGE, ROBERT W

ART UNIT PAPER NUMBER

1746

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/805,509	Applicant(s) DANSUI ET AL.	
	Examiner Robert Hodge	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 18 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 18 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12/28/2004 have been fully considered but they are not persuasive. The examiner acknowledges that the applicants have amended the claims with a negative limitation to state that "the nickel hydroxide particles have not been treated with an aqueous solution and oxidizing agent". However this raises the issue of new matter and will be further contended with in the proceeding office action. Furthermore the Ogasawara et al. reference does not teach treating the nickel hydroxide particles with an aqueous solution and an oxidizing agent, but rather teaches a formation process of the nickel hydroxide particles. Treating and forming are two separate processes and cannot be compared. And the applicants say nothing to the fact as to how the nickel hydroxide particles have been acquired; therefore the examiner maintains the previous rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-10 and 18 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The phrase "wherein the

Art Unit: 1746

nickel hydroxide particles are not treated with an aqueous solution and oxidizing agent" is new matter, because the negative limitation is not literally supported by the specification. *Ex Parte Grasselli*, 231 USPQ 393. Contrary to the applicants' statement in the present response, this limitation is not supported in the specification, page 8 second full paragraph. There is no mention of "nickel hydroxide particles" and how they are treated in the specification. And the mere elimination of the treatment process or non-treatment process of the "nickel hydroxide particles" from the specification is not grounds for new matter to be added to the claims. Especially since there is no mention of how the "nickel hydroxide particles" are formed, treated...etc. The specification merely states that the "nickel hydroxide particles" are present in the electrode. Therefore it stands to reason that the process disclosed by Ogasawara et al. could still form the "nickel hydroxide particles" of the present invention. Especially since the process is a formation process not a treatment process.

4. Claim 19 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The phrase "wherein only the at least rare earth compound is produced by treatment with an aqueous alkaline solution and an oxidizing agent" is new matter, because the limitation is not literally supported by the specification. Contrary to the applicants' statement in the present response, this limitation is not supported in the specification, page 8 second full paragraph. There is no mention of only the rare earth compound being treated in the specification. The

Art Unit: 1746

specification does mention how the rare earth compound is produced. However no mention is made that only the rare earth compound is treated in such a manor.

5. The examiner notes that if the new matter is removed from the claims the previous office action will be applied. The examiner further notes that the addition of any claim limitation as to how the "nickel hydroxide particle" is formed or not formed would also constitute new matter since there is nothing in the specification to support anything about the "nickel hydroxide particle" other than its mere presence.

6. Furthermore the applicants state in their specification page 7, lines 19-22: "The nickel hydroxide particles...have no particular limitation to their constituents and hence, any materials known in the art may be used." This recitation actually contradicts the negative limitation that has been added to the claims. If the "nickel hydroxide particle" is not being treated in the present invention, then how can the "nickel hydroxide particle" have no particular limitation to its constituents and any material known in the art (as disclosed by Ogasawara et al.) be used?

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3, 6-10 and 18-19 are rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent No. 6,576,368 to Ogasawara et al. Hereinafter

Art Unit: 1746

Ogasawara et al. Claims 1-3, 6-10, 18 and the Ogasawara et al. reference disclose a nickel positive electrode active material comprising nickel hydroxide particles and at least one rare earth compound (claim 1), the at least one rare earth compound having characteristics produced by treating a rare earth oxide with an aqueous alkaline solution and an oxidizing agent (claims 2 and 9). The 'Ogasawara et al. reference discloses the claim limitations by disclosing the manufacture of a positive active material, obtainable by combining nickel hydroxide with yttrium oxide, wherein the yttrium oxide is treated with an aqueous solution of sodium hydroxide (claim 6) and an aqueous sodium hypochlorite (claim 7) oxidizing solution. Column 5, lines 13-63.

9. As to claim 3, disclosing an yttrium content of 3% with respect to the amount of nickel hydroxide, this meets the claim limitations of 0.1 to 4% based on nickel hydroxide particles. See column 5, line 59 *et seq.*

10. As to claims 8 and 10, disclosing that the above system includes a negative electrode and a hydrogen absorbing alloy and a separator. Column 3, line 65 *et seq.* Disclosing that the sealed alkaline storage battery of the present invention includes the positive electrode of the present invention, a negative electrode and a hydrogen storage alloy electrode. The separator is inherent in every battery, and is disclosed at column 6, line 7 *et seq.* "a separator made of polyamide nonwoven fabric."

11. The examiner notes that claim 18 is admitted to be a product-by-process claim by the applicants. "Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps". See MPEP § 2113.

Art Unit: 1746

Therefore because all of the structure recited in claim 18 is present in the Ogasawara et al. reference, claim 18 is included in the above 102(e) rejection.

12. As to claim 19, reciting "only the at least one rare earth compound is produced by treatment with an aqueous alkaline solution and an oxidizing agent", the Ogasawara et al. reference does not teach treating the nickel hydroxide particles with an aqueous solution and an oxidizing agent, but rather teaches a formation process of the nickel hydroxide particles. Treating and forming are two separate processes and cannot be compared. And the applicants say nothing to the fact as to how the nickel hydroxide particles have been acquired; therefore the Ogasawara et al. reference reads on claim 19 as so recited.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogasawara et al. as discussed above in view of United States Patent No. 6,136,473 Furukawa et al. Hereinafter Furukawa.

15. With specific respect to claims 4 and 5, further limiting claim 2, and disclosing that the rare earth compound is a combination of the yttrium/ytterbium compound and the lutetium compound, wherein the two compounds meet $50 \geq X \geq 5$, when weights of

Art Unit: 1746

the yttrium compound and the lutetium compound are $(100-X)$ % by weight and X % by weight, respectively. Each and every limitation of claims 4 and 5 are disclosed in '368 as set forth above, except that the '368 reference fails to explicitly disclose that the rare earth combination is yttrium-lutetium compound and ytterbium-lutetium compound. Wherein the two compounds (Y/Yb-Lu) meet $50 \geq X \geq 5$, when weights of the yttrium (or ytterbium) compound and the lutetium compound are $(100-X)$ % by weight and X % by weight, respectively. Furukawa discloses that two or more kinds of selected rare earth elements are ytterbium and lutetium, and a ratio of the content of ytterbium to the contents of ytterbium and lutetium is larger than or equal to 0.75 when converted to an amount of oxide. See e.g. column 5, line 44 *et seq.* also see e.g. column 28, lines 5-10. Ytterbium is disclosed as a specific example of a rare earth, Y, is also disclosed as a desirable rare earth. The artisan would have been motivated to make the instant combination for the reason explicitly disclosed in Furukawa, namely, a composite compound having Yb and Lu as its principal component, for example, is inexpensive because it is formed as an eutectoid when separating and forming the rare earth element from ore. See e.g. column 5, line 51 *et seq.* Additionally the artisan would have been motivated to make the combination because Y, Ho, Er, Tm, Yb and Lu etc. have an effect of shifting the oxygen evolution potential to a more noble potential, thus reducing the likelihood of gas evolution during overcharging. See also column 25, line 48-54, disclosing Yb and Lu and optionally Y.

Art Unit: 1746

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Hodge whose telephone number is (571) 272-2097. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RWH 2-16-05


MICHAEL BARR
SUPERVISORY PATENT EXAMINER